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Carboxylate-directed C–H allylation with allyl alcohols or ethers

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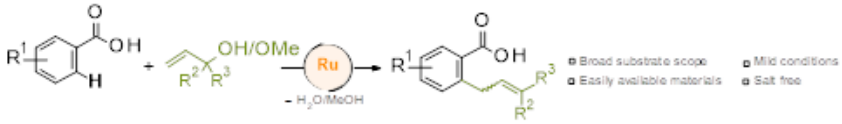
A $[Ru(p\text{-cymene})Cl_2]_2$ catalyst activates allyl alcohols and ethers for the regioselective ortho-C–H allylation of aromatic and heteroaromatic carboxylates. The reaction is orthogonal to most C–H functionalizations with allyl alcohols in that allyl arenes rather than carbonyl compounds are obtained. A wide range of substrates are thus smoothly transformed to allylarenes at 50°C in phosphate-buffered 2,2,2-trichloroethanol. The reaction concept combines the use of abundant reagents and directing groups in a sustainable, waste-minimized method for C–C bond formation.



Biography

Zhiyong Hu has completed his Master's degree from East China University of Science and Technology in China. Currently, he is pursuing his PhD at Ruhr-Universität Bochum, supervised by Lukas J Gooßen.

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